

## Ramp Design Material Cost

1 sentence strip .....\$1.00

1 cardboard strip .....\$1.00

20 cm piece of foil .....\$1.00

20 cm piece of waxed paper.....\$0.50

1 index card .....\$0.50

10cm strip of tape .....\$0.50

10cm strip of string .....\$0.10

<b>Materials Needed</b>	<b>Cost</b>
<b>Total</b>	

# **Designing a ramp for your marble powered car using engineering design**

## **ASK**

What are the goals for your design?

How will the height of your ramp affect the distance the car will travel?

How will the mass of your marble affect the distance your car will travel?

How will the materials used in your design affect the distance your car will travel?

Are there other considerations?

## **IMAGINE**

Brainstorm some different ramp designs and ideas.

## **PLAN**

Draw a labeled diagram for your ramp and use the material cost chart to decide on the amount of materials needed.

## **CREATE**

Build your ramp and test it!

## **IMPROVE**

How could you make your design better?